

VA Office of Information and Technology Enterprise Architecture Management



Systems Integration and Development Service (SIDS)

Configuration Management Policy CM010

V1.0

April 11, 2006

Department of Veterans Affairs

Letter of Promulgation

As the Director of the Systems Integration and Development Services (SIDS) in the Office of Enterprise Architecture Management (OEAM) at the Department of Veterans Affairs (VA) Chief Information Officer (CIO), I do hereby formally promulgate this Configuration Management (CM) Policy as the official policy of the SIDS. This CM policy will help standardize SIDS CM requirements, clarify and enhance current practices, facilitate the alignment of the organization with the Carnegie-Mellon University Software Engineering Institute Capability Maturity Model Integration (CMU/SEI CMMI), and ensure compliance with OEAM CM policy and the Enterprise Architecture provisions of the Information Technology Management Reform Act (Clinger-Cohen Act of 1996 (40 U.S.C. 1401(3))) and direct their application across the SIDS.

May 1, 2006
(Effective Date)

(Signature obtained and on file)
Frances G. Parker, Director (Acting)
Systems Integration and Development Services
Office of Enterprise Architecture Management
VA Office of Information and Technology

April 11, 2006
(Date)

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Record of Changes

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1. INTRODUCTION

1.1. PURPOSE

This document establishes a configuration management (CM) policy for the Systems Integration and Development Services (SIDS) in the Office of Enterprise Architecture Management (OEAM), Office of Information and Technology (OI&T), U. S. Department of Veterans Affairs (VA).

1.2. SCOPE

This policy applies to all SIDS organizations, branches, sub-organizations, integration and development projects, and contractors receiving, expending, or disbursing SIDS funds.

1.3. EFFECTIVE DATE

This policy shall apply to all SIDS projects and offices effective 15 calendar days after signature by the Director, SIDS (or designee). All projects a) started after the effective date or b) in Phase 0 (zero) of the System Development Life Cycle (SDLC) at the effective date shall comply with this policy.

Projects assigned to SIDS that are in the middle of any SDLC phase other than Phase 0 (zero) at the effective date of this policy are required to demonstrate due diligence in complying with this policy within 30 days of the effective date, to the degree that it does not jeopardize their ability to satisfy prior project commitments. Additionally, all projects in the Maintenance and Operations (M&O) phase shall, at a minimum, assess and report compliance with this policy on an annual basis.

All other projects and efforts under SIDS authority shall, at a minimum, assess their compliance with this policy, report their assessment and their demonstrations of due diligence in complying with this policy prior to the start of their next new SDLC phase.

Projects requesting a waiver from the requirements in this policy shall make the request in writing to the Director, SIDS. The Director, SIDS, shall consider special situations for non-compliance on a case-by-case basis.

1.4. RESPONSIBILITIES

The Director, SIDS, has the basic responsibility for implementing this policy within the SIDS. The heads of all SIDS sub-organizations (Branches, Staff Elements, their subordinate organizations and offices, and all projects) are responsible for implementing this policy and for compliance with the requirements of this policy within their respective organizations and projects. The Director, SIDS, has responsibility for ensuring that compliance with this policy is assessed and reported at least annually to the Associate Deputy Assistant Secretary (ADAS) for Enterprise Architecture Management.

SIDS sub-organization managers (Branches, Staff Elements, their subordinate organizations and offices, and all projects) have the basic responsibility for implementing the policy for their respective offices and projects. If an office or project manager is not a VA employee, then a VA employee shall be assigned to provide oversight to the non-VA IT manager to ensure compliance with this policy.

1.5. REFERENCES AND RELATED DOCUMENTS

1.5.1. REFERENCES

- a. Carnegie Mellon University/Software Engineering Institute, Capability Maturity Model Integration for Systems Engineering, Software Engineering, Integrated Product and Process Development, and Supplier Sourcing (CMMI-SE/SW/IPPD/SS) V1.1, March 2002.
- b. “Clinger-Cohen Act of 1996” (40 U.S.C. 1401(3)) (also known as the “Information Technology Management Reform Act”)
- c. Electronic Industries Alliance (EIA) (Government Electronic and Information Technology Association (GEIA)) Standard-649-A, National Consensus Standard for Configuration Management, April 2004
- d. “Strategic Plan for Employees, 2003 – 2008,” December 2003, Office of the Secretary for the U.S. Department of Veterans Affairs

1.5.2. RELATED DOCUMENTS

This policy is subordinate to the VA OI&T OEAM policy on Configuration Management. Any discrepancy or conflict between this policy and the OEAM policy will be resolved in favor of the higher authority. Anyone observing or otherwise aware of such a discrepancy or conflict should bring it to the attention of the Director, SIDS, as soon as possible.

This policy is closely related to policies on Contract Management, Program Management, Project Management, and Quality Management.

1.6. TERMS AND ABBREVIATIONS

1.6.1. Terms

The following terms (with definitions) are used in this document:

| TERM | DEFINITION |
|-------------|--|
| Audit | Independent examination of a work product or set of work products to determine whether requirements are being met (CMU/SEI CMMI) |
| Baseline | Refer to “configuration baseline” (GEIA-649) |
| Change | Refer to “configuration change” (GEIA-649) |

| TERM | DEFINITION |
|---------------------------------|---|
| Change approval authority | The activity (usually represented by a person or defined group of persons) authorized to approve any configuration change to a product and to commit resources for its implementation. (GEIA-649) |
| Change management | Judicious use of means to effect a change, or proposed change, on a product or service. (Refer to “configuration change management.”) (CMU/SEI CMMI) |
| Configuration | <ol style="list-style-type: none"> 1. Product attributes of an existing or planned product or combination of products; 2. One of a series of sequentially-created variations of a product (GEIA-649) |
| Configuration audit | CM function that reviews processes and products to validate compliance with requirement, and verifies that products have achieved their required attributes and conform to released product definition information. Configuration audits may be divided into separate functional and physical configuration audits (GEIA-649) |
| Configuration baseline | <ol style="list-style-type: none"> 1. Agreed-to information that identifies and establishes the attributes of a product at a point in time and that serves as basis for defining change (GEIA-649) 2. The configuration information formally designated at a specific time during a product's or product component's life. Configuration baselines, plus approved changes from those baselines, constitute the current configuration information. (CMU/SEI CMMI) |
| Configuration change | An alteration to a product and/or its product configuration information (as documented in a request for change (configuration change proposal)) (GEIA-649) |
| Configuration change management | CM function that ensures changes to a configuration baseline are properly identified, recorded, evaluated, approved or disapproved, and incorporated and verified as appropriate (GEIA-649) |
| Configuration item | Work product or aggregation of work products designated for configuration change management and treated as a single entity in the configuration management process (CMU/SEI CMMI) |
| Configuration management (CM) | Process that establishes and maintains consistency of a product's attributes with its requirements and product configuration information throughout the product's life cycle (GEIA-649) |

| TERM | DEFINITION |
|---------------------------------------|--|
| Configuration status accounting (CSA) | <ol style="list-style-type: none"> 1. CM function managing the capture and maintenance of product configuration information necessary to account for the configuration of a product throughout the product's life cycle (GEIA-649) 2. Element of CM consisting of the recording and reporting of information needed to manage a configuration effectively. (This information includes a listing of the approved configuration identification, the status of proposed changes to the configuration, and the implementation status of approved changes (CMU/SEI CMMI)) |
| Customer | Party (individual, project, or organization) responsible for accepting the product or for authorizing payment. The customer is external to the project, but not necessarily external to the organization (CMU/SEI CMMI) |
| Life cycle | Generic term for the phases in the life of a product from concept to disposal (GEIA-649) |
| Managed process | A process that is planned and executed in accordance with policy; employs skilled people having adequate resources to produce controlled outputs; involves relevant stakeholders; is monitored, controlled, and reviewed; and is evaluated for adherence to its process description. |
| Metadata | Information about data (GEIA-649) |
| Organization | An administrative structure in which people collectively manage one or more projects or services as a whole, and whose projects or services share a senior manager and operate under the same policies. |
| Performance | Quantitative measure characterizing a physical or functional attribute relating to the execution of an operation or function (e.g., quantity (how many/how much), quality (how well), coverage (how much area, how far), timeliness (how responsive, how frequent), and readiness (availability, mission/operational readiness) (GEIA-649) |
| Product | <ol style="list-style-type: none"> 1. Something used or produced to satisfy a need or is the result of a process; e.g., document, facility, firmware, hardware, materials, processes, services, software, systems (GEIA-649) 2. any tangible output or service that is a result of a process and that is intended for delivery to a customer or end user. A product is a work product that is delivered to the customer. (CMU/SEI CMMI) |

| TERM | DEFINITION |
|-----------------------------------|---|
| Product configuration information | Information about a product consisting of product definition information and product operational information (GEIA-649) |
| Product definition information | Information that defines the product requirements, documents the product attributes, and is the authoritative source for configuration definition and control (GEIA-649) |
| Release | <ol style="list-style-type: none"> 1. Particular version or revision of a product that is made available for a specific purpose (for example, test release, production release) (GEIA-649) 2. Authorization for dissemination of approved information and/or products subject to configuration change management (GEIA-649) |
| Request for Waiver | A request to depart from specified or mandatory requirements or provisions |
| Requirement | <ol style="list-style-type: none"> 1. Need or expectation that is stated and obligatory; 2. Specified value for an essential product attribute (GEIA-649) |
| Requirements traceability | Evidence of an association between a requirement and its source requirement, its implementation, and its verification (CMU/SEI CMMI) |
| Version | Specific configuration of a product which varies from other configurations of the product (GEIA-649) |

1.6.2. Abbreviations

The following abbreviations (with expansions) are used in this document:

ABBREVIATION EXPANSION

| | |
|---------|---|
| ADAS | Associate Deputy Assistant Secretary |
| CM | Configuration Management |
| CMMI | Capability Maturity Model Integration |
| CMU/SEI | Carnegie-Mellon University/Software Engineering Institute |
| GEIA | Government Electronics and Information Technology Association |
| IT | Information Technology |
| M&O | Maintenance and Operations |
| OEAM | Office of Enterprise Architecture Management |
| OI&T | Office of Information and Technology |
| RFW | Request for Waiver |
| SIDS | Systems Integration and Development Services |
| VA | (U.S. Department of) Veterans Affairs |

2. POLICY

2.1. POLICY STATEMENT

The CM policy of the SIDS is:

1. To establish and maintain the integrity of VA information technology systems and assets for which the SIDS is responsible;
2. To establish and maintain the integrity of SIDS internal management documents;
3. To ensure that SIDS CM policy is in compliance with the CM policy of its parent organization, OEAM;
4. To implement and maintain a board for the purpose of analyzing proposed changes and modifications to properly selected and identified items; and
5. To implement and maintain a board for a recommended disposition to the Director, SIDS, for each proposed change.

This is the minimum SIDS CM policy. SIDS sub-organizations desiring to develop CM policies less restrictive than this SIDS CM policy must submit a written Request for Waiver (RFW) and have it approved by the Director, SIDS, or higher authority. An RFW is not required for more restrictive policies.

2.2. CONFIGURATION MANAGEMENT GOALS

The CM goals of the SIDS are to:

1. Institutionalize CM across the SIDS as a managed process;
2. Establish baselines of work products identified as Configuration Items (CI);
3. Track and control changes to CI that are under CM;
4. Establish and maintain the integrity of configuration baselines; and
5. Institutionalize CM across the SIDS organization as a defined process.

2.2.1. Institutionalize a Managed CM Process

To institutionalize CM across the SIDS as a managed process, the SIDS and its sub-organizations must:

1. Establish policies for planning and performing the CM process;
2. Establish and maintain plans for performing the CM process;
3. Provide adequate resources for performing the CM process, developing the work products, and providing the services of the process;
4. Assign responsibility and authority for performing the process, developing the work products, and providing the services of the CM process;
5. Ensure that the people performing or supporting the CM process are trained to perform their CM duties;
6. Place designated work products of the CM process under appropriate levels of configuration management;
7. Identify stakeholders in the planned CM process and involve them in the CM process;

8. Monitor and control performance of the CM process as planned and take appropriate corrective actions;
9. Objectively evaluate adherence of the configuration management process against its process description, standards, and procedures, and address noncompliance; and
10. Conduct reviews of activities, status, and results of the CM process with higher level management and resolve issues.

2.2.2. Establish Baselines

To establish configuration baselines, the SIDS must:

1. Establish and maintain a configuration management and change management system for controlling work products;
2. Uniquely identify the configuration items, components, and related products to be placed under configuration change management; and
3. Create or release configuration baselines through a defined authority for internal use and for delivery to customers.

2.2.3. Track and Control Change

To track and control change, all SIDS organizations and efforts (including SIDS Staff Offices, and all other SIDS sub-organizations) must:

1. Track configuration changes levied against configuration items, components, and related products; and
2. Manage and control changes to configuration items, components, and related products.

2.2.4. Establish and Maintain Integrity

To establish and maintain the integrity of VA configuration baselines for which SIDS has responsibility, the SIDS must:

1. Establish and maintain records describing configuration items, components, and related products; and
2. Perform functional and physical configuration audits to ensure integrity of the configuration baselines and requirements traceability.

2.2.5. Institutionalize a Defined CM Process

To institutionalize CM across the SIDS as a defined process, the SIDS must:

1. Establish and maintain a written, defined CM process; and
2. Collect products, measures, measurement results, and improvement information derived from planning and performing CM processes to support future use and improvement of VA processes and process assets.